

WHAT IS CLAIMED IS:

1. A method for generating a frame transmitting broadcasting data in a radio network controller of a mobile communication system transmitting logical channels, which include a broadcasting service transport channel transmitting the broadcasting data according to a broadcasting service and a broadcasting service control channel transmitting control information according to the broadcasting service, to one or more user equipments located in each cell through a transport channel, the method comprising the steps of:

determining at least one logical channel to be transmitted through one transport channel; and

generating a frame which does not contain a target channel type field (TCTF) and a MBMS ID field, but contains a payload for transmitting the broadcasting data, when one broadcasting service transport channel is determined as the logical channel.

2. The method according to claim 1, further comprising a step of generating a frame containing the MBMS ID field and the payload for transmitting the broadcasting data, when multiple broadcasting service transport channels are determined as the logical channel.

3. The method according to claim 1 or 2, further comprising a step of generating a frame containing the target channel type field, the MBMS ID field, and the payload for transmitting the broadcasting data, when one or more broadcasting service transport channels and other logical channels are determined as the logical channel.

4. The method according to claim 3, further comprising a step of, before transmitting the frame, transmitting a target channel type field identity and a MBMS ID identity, which represents whether or not the target channel type field and the MBMS ID field are contained in the frame, to the user equipment through the broadcasting service control channel.

5. A method for receiving a frame including broadcasting data from a radio network controller in a user equipment of a mobile communication system receiving logical channels, which include a broadcasting service transport channel transmitting the broadcasting data according to a broadcasting service and a broadcasting service control channel transmitting control information according to the broadcasting service, through a transport channel, the method comprising the steps of:

confirming a logical channel multiplexing option used in the frame through the broadcasting service control channel;

setting a processing path of the frame by the logical channel multiplexing option; and

processing the frame through the set processing path.

6. The method according to claim 5, wherein, when it is confirmed that the logical channel multiplexing option is a logical channel multiplexing option transmitting only one broadcasting service transport channel through one transport channel, a function block for processing a target channel type field and a MBMS ID field is excluded from the processing path.

7. The method according to claim 5 or 6, wherein, when it is confirmed that the logical channel multiplexing option is a logical channel multiplexing option transmitting multiple broadcasting service transport channels through one transport channel, a function block for processing a MBMS ID field constituting the message is contained in the processing path.

8. The method according to claim 7, wherein, when it is confirmed that the logical channel multiplexing option is a logical channel multiplexing option transmitting at least one broadcasting service transport channel and other logical channels through one transport channel, a function block for processing a target channel type field and a MBMS ID field constituting the message is contained in the processing path.

9. A method for generating a frame transmitting broadcasting data in a radio network controller of a mobile communication system transmitting logical channels, which include a broadcasting service transport channel transmitting the broadcasting data according to a broadcasting service and a broadcasting service control channel transmitting control information according to the broadcasting service, to one or more user equipments located in each cell through a transport channel, the method comprising the steps of:

determining at least one logical channel to be transmitted through one transport channel; and

generating a frame containing a MBMS ID field and a payload transmitting the broadcasting data, when multiple broadcasting service transport channels are determined as the logical channel.

10. The method according to claim 9, further comprising a step of, before transmitting the frame, transmitting a MBMS ID identity, which represents whether or not a MBMS ID field is contained in the frame, to the user equipment through the broadcasting service control channel.

11. A method for receiving a frame including broadcasting data from a radio network controller in a user equipment of a mobile communication system receiving logical channels, which include a broadcasting service transport channel transmitting the broadcasting data according to a broadcasting service and a broadcasting service control channel transmitting control information according to the broadcasting service, through a transport channel, the method comprising the steps of:

confirming a logical channel multiplexing option used in the frame through the broadcasting service control channel;

setting a processing path excluding function blocks for processing a target channel type field and a MBMS ID field, when it is confirmed that the logical channel multiplexing option is a logical channel multiplexing option transmitting only one broadcasting service transport channel through one

transport channel;

setting a processing path so that the function block for processing the target channel type field is excluded and the function block for processing the MBMS ID field is contained, when it is confirmed that the logical channel multiplexing option is a logical channel multiplexing option transmitting multiple
5 broadcasting service transport channels through one transport channel;

setting a processing path so that the function blocks for processing the target channel type field and the MBMS ID field are contained, when it is confirmed that the logical channel multiplexing option is a logical channel
10 multiplexing option transmitting at least one broadcasting service transport channel and other logical channels through one transport channel; and

processing the frame through the set processing paths.

12. A method for generating a frame transmitting broadcasting data in a
15 radio network controller of a mobile communication system transmitting logical channels, which include a broadcasting service transport channel transmitting the broadcasting data according to a broadcasting service and a broadcasting service control channel transmitting control information according to the broadcasting service, to one or more user equipments located in each cell through a transport
20 channel, the method comprising the steps of:

determining at least one logical channel to be transmitted through one transport channel;

generating a payload for transmitting the broadcasting data, when one broadcasting service transport channel is determined as the logical channel;

25 generating a frame containing a MBMS ID field and a payload transmitting the broadcasting data, when multiple broadcasting service transport channels are determined as the logical channel; and

generating a frame containing the target channel type field, the MBMS ID field, and the payload for transmitting the broadcasting data, when one or
30 more broadcasting service transport channels and other logical channels are determined as the logical channel.

13. The method according to claim 12, further comprising a step of, before transmitting the frame, transmitting a target channel type field identity and a MBMS ID identity, which represents whether or not the target channel type field and the MBMS ID field are contained in the frame, to the user equipment through the broadcasting service control channel.

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